

111. *Description of a New Actinian, Andwakia Hozawai n. sp.*

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The genus *Andwakia* has hitherto been represented by the single species *Andwakia mirabilis*¹⁾ Danielssen which is found in Husöen, Sognefjord, on the western coast of Norway. Among the actinians collected in Mutsu Bay and intrusted to him for identification, the writer found several specimens belonging to the genus. On account of disparity in the number of tentacles and the presence of imperfect mesenteries of the third cycle, the Japanese actinian seems to be quite different from the Norwegian species and thence has been named *Andwakia Hozawai* n. sp., the specific name being chosen in appreciation of kindness received by the present writer from Professor S. Hozawa, of the Zoological Institute, Tohoku Imperial University.

The actinian occurs buried in sandy bottom, probably without any covering imbued with detritus particles. The body, though extremely variable in form owing to contraction, is broadly cylindrical and somewhat cornucopia-like. A well-preserved specimen is 55 mm long, and 10 mm wide in the widest distal part and 4 mm in the narrowest proximal part of the scapus. The capitulum is short and liable to be withdrawn into the scapus which is wider than the former. When slightly contracted, the capitulum is clearly demarked from the scapus by a collar-like fosse. The tentacles are about 60–80 in number, tapering, filamentous, and arranged in 5–6 cycles, the outer tentacles being slightly smaller than the inner ones. The oral disc is rather small, with a slit-like mouth in the central portion. The siphonoglyphs are two in number and the lips are somewhat elevated, forming 13–15 foldings. The scapus is elongated and can be divided into two parts; the comparatively narrow proximal part has about 1/3 the length of the

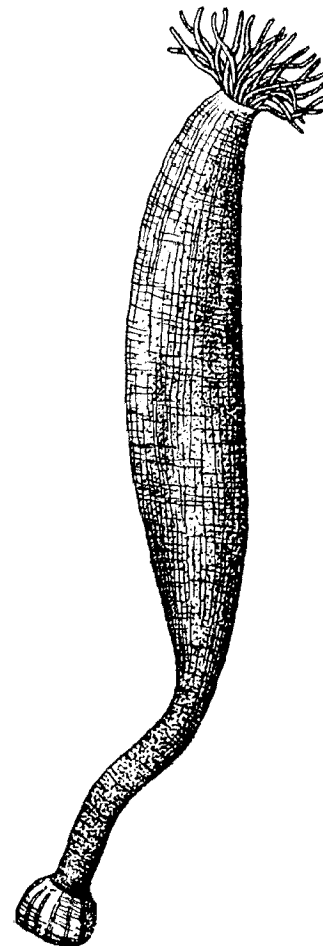
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1) Danielssen, D. C. The Norwegian North-Atlantic Expedition 1876–1878. Zoology, Actinida, p. 86, pl. 4, fig. 10, 11 et pl. 11, 1890.—Carlgren, O. The Danish Ingolf-Expedition, vol. 5, 9. Actiniaria pl. 1, p. 133, 1921.

scapus while the broader distant part is widest in the middle portion. The surface of the scapus is generally smooth and seems to be devoid of conspicuous papilla-like elevations. The insertions of mesenteries are obvious from the outside in the scapus and in the physa. A few acontia are often discharged outside of the body wall through cinclids distributed in the middle portion of the scapus. The physa is ampullaceous and very conspicuous in well-preserved specimens, but often reduced to only an enlargement in contracted specimens. The colour of specimens preserved in formalin is bluish grey.

The tentacles consist of very thick ectoderm armed with numerous spirocysts, thick mesogloea furnished with ring muscles which give rise to many centrifugal processes, and thin endoderm. Around the marginal portion of the capitulum is developed the mesogloea sphincter. The ectoderm of the scapus is generally thicker than the mesogloea and the endoderm, though the

Fig. 1.



Andwakia Hozawai n. sp.
×3/2.

Fig. 2.

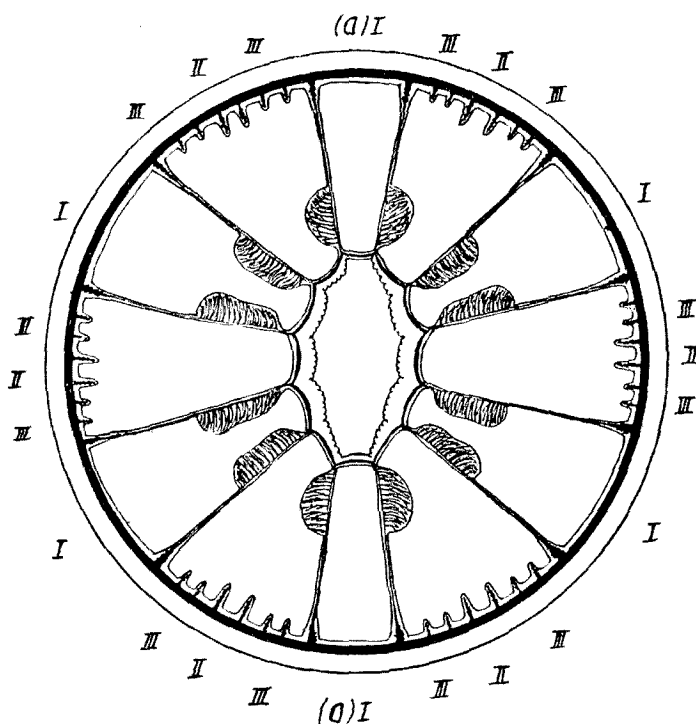


Fig. 2.

Diagram of transverse section of *Andwakia Hozawai* n. sp. through the part of the action-pharynx, I(D). directive mesentery pair, I. mesentery pair of the first cycle, II. mesentery pair of the second cycle, III. mesentery pair of the third cycle.

latter two become quite thick near the basal portion. The inner layer of the actinopharynx is highly folded and made of high cylindrical ectoderm cells, containing many gland cells. The mesogloea has many centrifugal cores, one in each fold.

The mesenteries are arranged in 24 pairs, of which 6 are perfect and 18 imperfect. Of the 6 perfect pairs 2 are directives. The perfect mesenteries are supplied with a well-developed sphincter proximal to the actinopharynx, which is connected with the endoderm walls of the coelom by means of two terminal lamellar parts. The cross section of the sphincter is generally circumscribed but elongated below the actinopharynx, always provided with a number of parallel muscle processes. The mesenterial filaments, generally three-lobed at the tip, are absent in mensenteries near the basal portion. The imperfect mesenteries are divided into two groups, 6 pairs of the secondary and 12 pairs of the third cycle. These mesenteries are destitute of mesenterial filaments and are furnished with a parietal muscle having several processes on both sides. The gonads develop only in the perfect mesenteries, ova or testicular vesicles being arranged in a row in the long tract of the mesogloea. The acontia, present in the middle portion of the scapus, are few in number.
